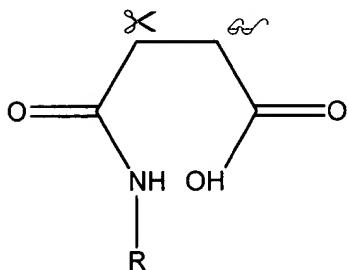


**AMENDMENTS TO THE CLAIMS:**

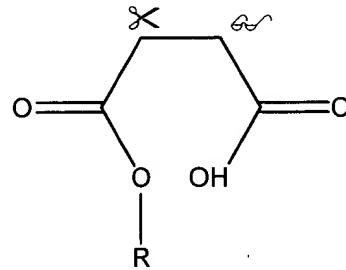
This listing of claims will replace all prior versions and listings of claims in the application:

1-23. (Cancelled).

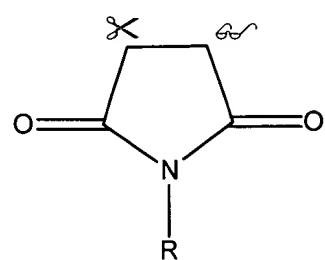
24. (New) A thermoplastic polymer comprising an elastomer as a main chain, in which a diene moiety is 5 mol % or less, and a side chain having at least one member selected from the group consisting of the following formulae (1), (2) and (3), which bonds to the main chain at  $\alpha$ -position or  $\beta$ -position,



(1)



(2)



(3)

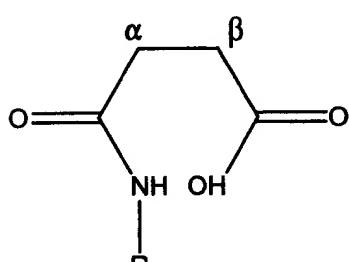
wherein R represents a nitrogen-containing heterocycle,

wherein the proportion of side chain units is 0.1 to 50 mol % with respect to 100 mol % of the main chain monomer units and wherein the thermoplastic polymer reversibly forms a stable crosslinked structure at room temperature and dissociates the crosslinked structure at a temperature of 120°C or higher.

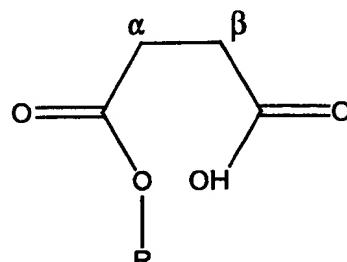
25. (New) The thermoplastic polymer of claim 24, wherein the nitrogen-containing heterocycle is a five-membered ring or a six-membered ring.

26. (New) A rubber composition containing the thermoplastic polymer of claim 24.

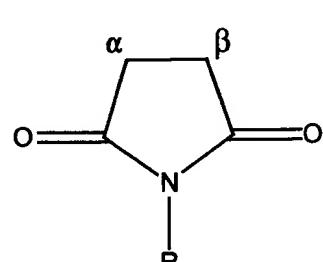
27. (New) A thermoplastic polymer comprising an ethylene -propylene copolymer (EPM), an ethylene-butene copolymer (EBM) or an ethylene-propylene-diene copolymer (EPDM) as a main chain, and a side chain having at least one member selected from the group consisting of the following formulae (1), (2) and (3), which bonds to the main chain at  $\alpha$ -position or  $\beta$ -position,



(1)



(2)



(3)

wherein R represents a nitrogen-containing heterocycle,  
wherein the proportion for the side chain moiety is 0.1 to 50 mol % with respect to 100 mol % of the main chain moiety and wherein the thermoplastic polymer reversibly forms a stable crosslinked structure at room temperature and dissociates the crosslinked structure at a temperature of 120°C or higher.

28. (New) The thermoplastic polymer of claim 27, wherein the nitrogen-containing heterocycle is a five-membered ring or a six-membered ring.

29. (New) A rubber composition containing the thermoplastic polymer of claim 27.